

Remarks

Claims 1-18 are pending. The Examiner has entered a restriction requirement as between:

Group I – claims 1, 4, 5 and 6, drawn to an acylphosphine oxide of formula (I) and its process for preparation;

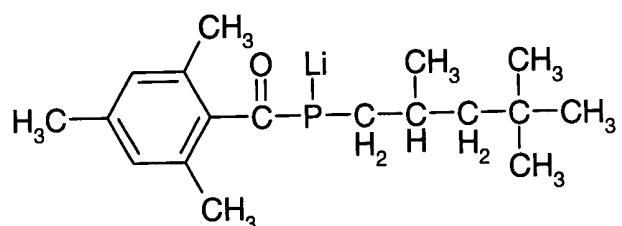
Group II – claims 2, 4, 6, 7 and 8, drawn to an acylphosphine oxide of formula (II);

Group III – claims 3, 4, 9, 10 and 11, drawn to an acylphosphine oxide of formula (III);

Group IV – claims 12-17, drawn to compositions comprising an acylphosphine initiator; and

Group V – claim 18, drawn to a method of use.

Further, the Examiner requires an election of species. Applicants elect to prosecute the invention of Group and direct the Examiner to the compound of Example 2



for the species requirement.

Claims 2 and 3 have been amended to exclude selected compounds by proviso. Applicants are permitted to exclude from their claims that which they were not the first to invent.

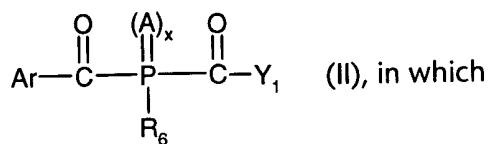
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Amended Claims with underlining and bracketing

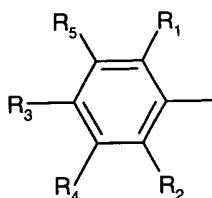
2. (amended) A compound of the formula II



**A** is O or S;

**x** is 0 or 1;

**Ar** is a group



; or Ar is cyclopentyl, cyclohexyl, naphthyl, anthracyl,

biphenyl or an O-, S- or N-containing 5- or 6-membered heterocyclic ring, where the radicals are cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl and 5- or 6-membered heterocyclic ring are unsubstituted or substituted by halogen,  $\text{C}_1\text{-C}_4$ alkyl and/or  $\text{C}_1\text{-C}_4$ alkoxy;

**R**<sub>1</sub> and **R**<sub>2</sub> independently of one another are  $\text{C}_1\text{-C}_{20}$ alkyl,  $\text{OR}_{11}$ ,  $\text{CF}_3$  or halogen;

**R**<sub>3</sub>, **R**<sub>4</sub> and **R**<sub>5</sub> independently of one another are hydrogen,  $\text{C}_1\text{-C}_{20}$ alkyl,  $\text{OR}_{11}$  or halogen; or in each case two of the radicals **R**<sub>1</sub>, **R**<sub>2</sub>, **R**<sub>3</sub>, **R**<sub>4</sub> and **R**<sub>5</sub> together form  $\text{C}_1\text{-C}_{20}$ alkylene which can be interrupted by O, S or  $-\text{NR}_{14}$ ;

**R**<sub>6</sub> is  $\text{C}_1\text{-C}_{24}$ alkyl, unsubstituted or substituted by  $\text{C}_5\text{-C}_{24}$ cycloalkenyl, phenyl, CN,  $\text{C}(\text{O})\text{R}_{11}$ ,  $\text{C}(\text{O})\text{OR}_{11}$ ,  $\text{C}(\text{O})\text{N}(\text{R}_{14})_2$ ,  $\text{OC}(\text{O})\text{R}_{11}$ ,  $\text{OC}(\text{O})\text{OR}_{11}$ ,  $\text{N}(\text{R}_{14})\text{C}(\text{O})\text{N}(\text{R}_{14})$ ,  $\text{OC}(\text{O})\text{NR}_{14}$ ,  $\text{N}(\text{R}_{14})\text{C}(\text{O})\text{OR}_{11}$ , cycloalkyl, halogen,  $\text{OR}_{11}$ ,  $\text{SR}_{11}$ ,  $\text{N}(\text{R}_{12})(\text{R}_{13})$  or  $\text{---}\overset{\text{O}}{\underset{\text{H}}{\text{C}}}\text{---CH}_2$ ;

$\text{C}_2\text{-C}_{24}$ alkyl which is interrupted once or more than once by nonconsecutive O, S or  $\text{NR}_{14}$  and which is unsubstituted or substituted by phenyl,  $\text{OR}_{11}$ ,  $\text{SR}_{11}$ ,  $\text{N}(\text{R}_{12})(\text{R}_{13})$ , CN,  $\text{C}(\text{O})\text{R}_{11}$ ,  $\text{C}(\text{O})\text{OR}_{11}$ ,  $\text{C}(\text{O})\text{N}(\text{R}_{14})_2$

and/or  $\text{---}\overset{\text{O}}{\underset{\text{H}}{\text{C}}}\text{---CH}_2$ ;

$\text{C}_2\text{-C}_{24}$ alkenyl which is uninterrupted or interrupted once or more than once by nonconsecutive O, S or  $\text{NR}_{14}$  and which is unsubstituted or substituted by  $\text{OR}_{11}$ ,  $\text{SR}_{11}$  or  $\text{N}(\text{R}_{12})(\text{R}_{13})$ ;

$\text{C}_5\text{-C}_{24}$ cycloalkenyl which is uninterrupted or interrupted once or more than once by nonconsecutive O, S or  $\text{NR}_{14}$  and which is unsubstituted or substituted by  $\text{OR}_{11}$ ,  $\text{SR}_{11}$  or  $\text{N}(\text{R}_{12})(\text{R}_{13})$ ;

$\text{C}_7\text{-C}_{24}$ arylalkyl which is unsubstituted or substituted on the aryl group by  $\text{C}_1\text{-C}_{12}$ alkyl,  $\text{C}_1\text{-C}_{12}$ alkoxy or halogen;

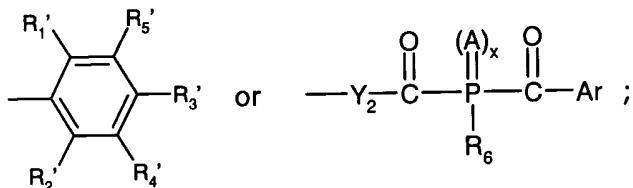
$\text{C}_4\text{-C}_{24}$ cycloalkyl which is uninterrupted or interrupted once or more than once by O, S and/or  $\text{NR}_{14}$  and which is unsubstituted or substituted by  $\text{OR}_{11}$ ,  $\text{SR}_{11}$  or  $\text{N}(\text{R}_{12})(\text{R}_{13})$ ; or  $\text{C}_8\text{-C}_{24}$ arylalkyl or  $\text{C}_8\text{-C}_{24}$ arylalkenyl;

$\text{R}_{11}$  is H,  $\text{C}_1\text{-C}_{20}$ alkyl,  $\text{C}_2\text{-C}_{20}$ alkenyl,  $\text{C}_3\text{-C}_8$ cycloalkyl, phenyl, benzyl or  $\text{C}_2\text{-C}_{20}$ alkyl which is interrupted once or more than once by nonconsecutive O atoms and which is unsubstituted or substituted by OH and/or SH;

**R**<sub>12</sub> and **R**<sub>13</sub> independently of one another are hydrogen,  $\text{C}_1\text{-C}_{20}$ alkyl,  $\text{C}_3\text{-C}_8$ cycloalkyl, phenyl, benzyl or  $\text{C}_2\text{-C}_{20}$ alkyl which is interrupted once or more than once by O or S and which is unsubstituted or

substituted by OH and/or SH; or  $R_{12}$  and  $R_{13}$  together are  $C_3$ - $C_5$ alkylene which is uninterrupted or interrupted by O, S or  $NR_{14}$ ;

$Y_1$  is  $C_1$ - $C_{18}$ alkyl which is unsubstituted or substituted by one or more phenyl;  $C_1$ - $C_{18}$ -halogenoalkyl;  $C_2$ - $C_{18}$ alkyl which is interrupted once or more than once by O or S and which can be substituted by OH and/or SH; unsubstituted  $C_3$ - $C_{18}$ cycloalkyl or  $C_3$ - $C_{18}$ cycloalkyl substituted by  $C_1$ - $C_{20}$ alkyl,  $OR_{11}$ ,  $CF_3$  or halogen;  $C_2$ - $C_{18}$ alkenyl; or  $Y_1$  is  $OR_{11}$ ,  $N(R_{12})(R_{13})$  or one of the radicals



or  $Y_1$  is cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl or an O-, S- or N-containing 5- or 6-membered heterocyclic ring, where the radicals cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl and 5- or 6-membered heterocyclic ring are unsubstituted or substituted by halogen,  $C_1$ - $C_4$ alkyl and/or  $C_1$ - $C_4$ alkoxy;

$Y_2$  is a direct bond; unsubstituted or phenyl-substituted  $C_1$ - $C_{18}$ alkylene; unsubstituted  $C_4$ - $C_{18}$ cycloalkylene or  $C_4$ - $C_{18}$ cycloalkylene substituted by  $C_1$ - $C_{12}$ alkyl,  $OR_{11}$ , halogen and/or phenyl; unsubstituted  $C_5$ - $C_{18}$ cycloalkenylene or  $C_5$ - $C_{18}$ cycloalkenylene substituted by  $C_1$ - $C_{12}$ alkyl,  $OR_{11}$ , halogen and/or phenyl; unsubstituted phenylene or phenylene substituted one to four times by  $C_1$ - $C_{12}$ alkyl,  $OR_{11}$ , halogen,  $-(CO)OR_{14}$ ,  $-(CO)N(R_{12})(R_{13})$  and/or phenyl;

or  $Y_2$  is a radical 
 or 
 , where these radicals are unsubstituted

or are substituted one to four times on one or both aromatic ring(s) by  $C_1$ - $C_{12}$ alkyl,  $OR_{11}$ , halogen and/or phenyl;

$Y_3$  is O, S,  $SO_2$ ,  $CH_2$ ,  $C(CH_3)_2$ ,  $CHCH_3$ ,  $C(CF_3)_2$ , CO or a direct bond;

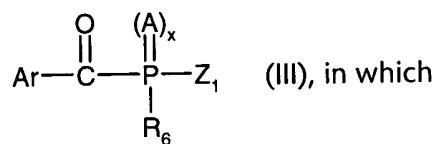
$R_{14}$  is hydrogen, phenyl,  $C_1$ - $C_{12}$ alkyl or  $C_2$ - $C_{12}$ alkyl which is interrupted once or more than once by O or S and which can be substituted by OH and/or SH;

$R_1'$  and  $R_2'$  independently of one another have the same meanings as given for  $R_1$  and  $R_2$ ; and

$R_3'$ ,  $R_4'$  and  $R_5'$  independently of one another have the same meanings as given for  $R_3$ ,  $R_4$  and  $R_5$ ; or in each case two of the radicals  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$  and  $R_5'$  together form  $C_1$ - $C_{20}$ alkylene which may be interrupted by O, S or  $-NR_{14}$ ;

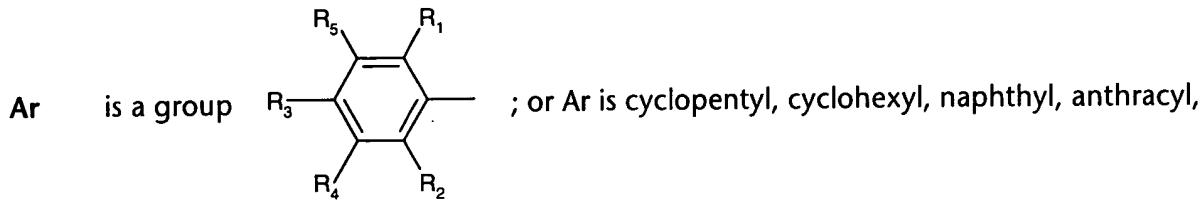
with the proviso that  $Y_1$  is not identical to Ar and wherein the compounds n-butyl-(2,6-dimethoxybenzoyl)-(2,4,6-trimethylbenzoyl) phosphine oxide, i-butyl-(2,6-dimethoxybenzoyl)-(2,4,6-trimethylbenzoyl) phosphine oxide and (2,6-dimethoxybenzoyl)-(2,6-dimethylbenzoyl)-(2,4,4-trimethylpentyl) phosphine oxide are excluded.

### 3. (amended) A compound of the formula III



$A$  is O or S;

$x$  is 0 or 1;

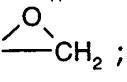


biphenyl or an O-, S- or N-containing 5- or 6-membered heterocyclic ring, where the radicals cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl and 5- or 6-membered heterocyclic ring are unsubstituted or substituted by halogen,  $C_1$ - $C_4$ alkyl and/or  $C_1$ - $C_4$ alkoxy;

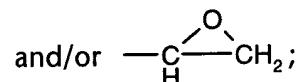
$R_1$  and  $R_2$  independently of one another are  $C_1$ - $C_{20}$ alkyl,  $OR_{11}$ ,  $CF_3$  or halogen;

$R_3$ ,  $R_4$  and  $R_5$  independently of one another are hydrogen,  $C_1$ - $C_{20}$ alkyl,  $OR_{11}$  or halogen; or in each case two of the radicals  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  together form  $C_1$ - $C_{20}$ alkylene which can be interrupted by O, S or  $-NR_{14}$ ;

$R_6$  is  $C_1$ - $C_{24}$ alkyl, unsubstituted or substituted by  $C_5$ - $C_{24}$ cycloalkenyl, phenyl, CN,  $C(O)R_{11}$ ,  $C(O)OR_{11}$ ,  $C(O)N(R_{14})_2$ ,  $OC(O)R_{11}$ ,  $OC(O)OR_{11}$ ,  $N(R_{14})C(O)N(R_{14})$ ,  $OC(O)NR_{14}$ ,  $N(R_{14})C(O)OR_{11}$ , cycloalkyl, halogen,

$OR_{11}$ ,  $SR_{11}$ ,  $N(R_{12})(R_{13})$  or ;

$C_2$ - $C_{24}$ alkyl which is interrupted once or more than once by nonconsecutive O, S or  $NR_{14}$  and which is unsubstituted or substituted by phenyl,  $OR_{11}$ ,  $SR_{11}$ ,  $N(R_{12})(R_{13})$ , CN,  $C(O)R_{11}$ ,  $C(O)OR_{11}$ ,  $C(O)N(R_{14})_2$

and/or ;

$C_2$ - $C_{24}$ alkenyl which is uninterrupted or interrupted once or more than once by nonconsecutive O, S or  $NR_{14}$  and which is unsubstituted or substituted by  $OR_{11}$ ,  $SR_{11}$  or  $N(R_{12})(R_{13})$ ;

$C_5$ - $C_{24}$ cycloalkenyl which is uninterrupted or interrupted once or more than once by nonconsecutive O, S or  $NR_{14}$  and which is unsubstituted or substituted by  $OR_{11}$ ,  $SR_{11}$  or  $N(R_{12})(R_{13})$ ;

$C_7$ - $C_{24}$ arylalkyl which is unsubstituted or substituted on the aryl group by  $C_1$ - $C_{12}$ alkyl,  $C_1$ - $C_{12}$ alkoxy or halogen;

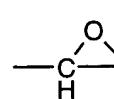
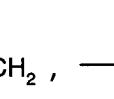
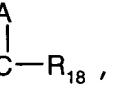
$C_4$ - $C_{24}$ cycloalkyl which is uninterrupted or interrupted once or more than once by O, S and/or  $NR_{14}$  and which is unsubstituted or substituted by  $OR_{11}$ ,  $SR_{11}$  or  $N(R_{12})(R_{13})$ ; or  $C_8$ - $C_{24}$ arylalkyl or

$C_8$ - $C_{24}$ arylcycloalkenyl;

$R_{11}$  is H,  $C_1$ - $C_{20}$ alkyl,  $C_2$ - $C_{20}$ alkenyl,  $C_3$ - $C_8$ cycloalkyl, phenyl, benzyl or  $C_2$ - $C_{20}$ alkyl which is interrupted once or more than once by nonconsecutive O atoms and which is unsubstituted or substituted by OH and/or SH;

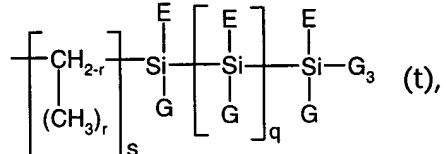
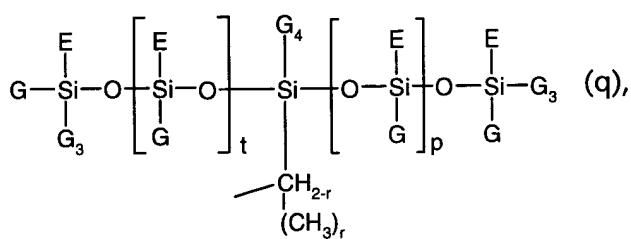
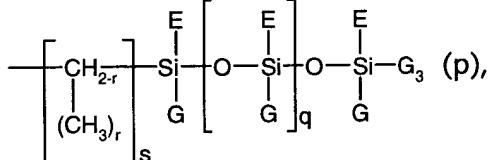
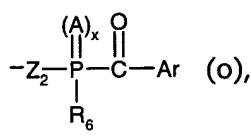
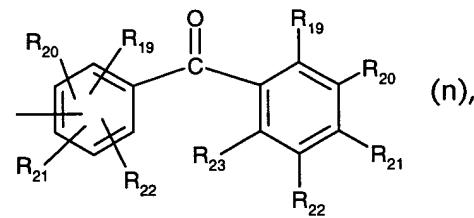
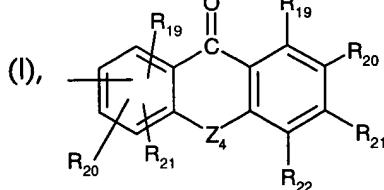
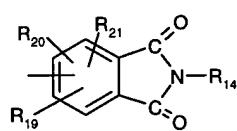
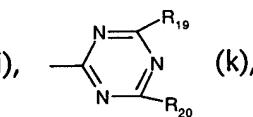
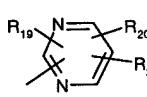
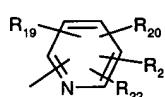
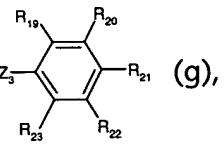
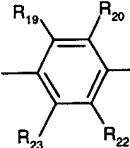
$R_{12}$  and  $R_{13}$  independently of one another are hydrogen,  $C_1$ - $C_{20}$ alkyl,  $C_3$ - $C_8$ cycloalkyl, phenyl, benzyl or  $C_2$ - $C_{20}$ alkyl, which is interrupted once or more than once by O or S and which is unsubstituted or substituted by OH and/or SH; or  $R_{12}$  and  $R_{13}$  together are  $C_3$ - $C_5$ alkylene which is uninterrupted or interrupted by O, S or  $NR_{14}$ ;

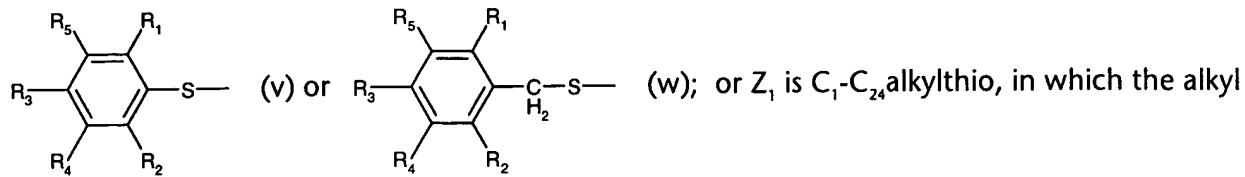
$Z_1$  is  $C_1$ - $C_{24}$ alkyl, which is unsubstituted or substituted once or more than once by  $OR_{15}$ ,  $SR_{15}$ ,

$N(R_{16})(R_{17})$ , phenyl, halogen, CN,  $-N=C=A$ ,  ,  ,  ,

and/or  $\begin{array}{c} A_1 \\ || \\ -C-N(R_{18})_2 \end{array}$  or  $Z_1$  is  $C_2$ - $C_{24}$ alkyl which is interrupted once or more than once by O, S or  $NR_{14}$  and which can be substituted by  $OR_{15}$ ,  $SR_{15}$ ,  $N(R_{16})(R_{17})$ , phenyl, halogen,  $\begin{array}{c} O \\ || \\ -C-CH_2 \end{array}$ ,  $\begin{array}{c} A \\ || \\ -C-R_{18} \end{array}$ ,  $\begin{array}{c} A \\ || \\ -C-OR_{18} \end{array}$  and/or  $\begin{array}{c} A_1 \\ || \\ -C-N(R_{18})_2 \end{array}$ ; or  $Z_1$  is  $C_1$ - $C_{24}$ alkoxy, which is substituted once or more than once by phenyl, CN,  $-N=C=A$ ,  $\begin{array}{c} O \\ || \\ -C-CH_2 \end{array}$ ,  $\begin{array}{c} A \\ || \\ -C-R_{18} \end{array}$ ,  $\begin{array}{c} A \\ || \\ -C-OR_{18} \end{array}$  and/or  $\begin{array}{c} A_1 \\ || \\ -C-N(R_{18})_2 \end{array}$ ; or  $Z_1$  is  $\begin{array}{c} A \\ || \\ -C-OR_{11} \end{array}$ ,  $\begin{array}{c} A_1 \\ || \\ -C-N(R_{16})(R_{17}) \end{array}$ ,  $\begin{array}{c} A \\ || \\ -C-OR_{11a} \end{array}$  or  $\begin{array}{c} A_1 \\ || \\ -C-N(R_{18a})(R_{18b}) \end{array}$ ; or  $Z_1$  is unsubstituted  $C_3$ - $C_{24}$ cycloalkyl or  $C_3$ - $C_{24}$ cycloalkyl substituted by  $C_1$ - $C_{20}$ alkyl,  $OR_{11}$ ,  $CF_3$  or halogen; unsubstituted  $C_2$ - $C_{24}$ alkenyl or  $C_2$ - $C_{24}$ alkenyl substituted by  $C_6$ - $C_{12}$ aryl, CN,  $(CO)OR_{15}$  or  $(CO)N(R_{18})_2$ ; or

$Z_1$  is  $C_3$ - $C_{24}$ cycloalkenyl or is one of the radicals





radical is uninterrupted or interrupted once or more than once by nonconsecutive O or S, and is unsubstituted or substituted by  $OR_{15}$ ,  $SR_{15}$  and/or halogen; with the proviso that  $Z_1$  and  $R_6$  are not identical;

$A_1$  is O, S or  $NR_{18a}$ ;

$Z_2$  is  $C_1-C_{24}$ alkylene;  $C_2-C_{24}$ alkylene interrupted once or more than once by O, S or  $NR_{14}$ ;  $C_2-C_{24}$ alkenylene;  $C_2-C_{24}$ alkenylene interrupted once or more than once by O, S or  $NR_{14}$ ;  $C_3-C_{24}$ cycloalkylene;  $C_3-C_{24}$ cycloalkylene interrupted once or more than once by O, S or  $NR_{14}$ ;  $C_3-C_{24}$ cycloalkylene;  $C_3-C_{24}$ cycloalkenylene interrupted once or more than once by O, S or  $NR_{14}$ ; where the radicals  $C_1-C_{24}$ alkylene,  $C_2-C_{24}$ alkylene,  $C_2-C_{24}$ alkenylene,  $C_3-C_{24}$ cycloalkylene and  $C_3-C_{24}$ cycloalkenylene are unsubstituted or are substituted by  $OR_{11}$ ,  $SR_{11}$ ,  $N(R_{12})(R_{13})$  and/or halogen; or  $Z_2$

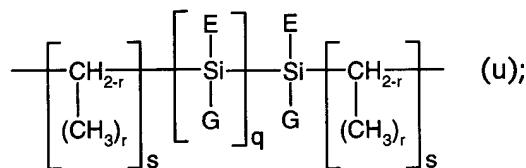
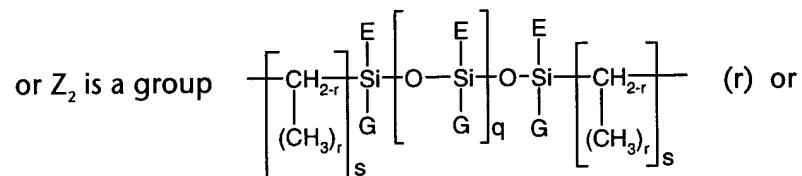
is one of the radicals



or

, where these radicals are unsubstituted or are substituted on the aromatic

by  $C_1-C_{20}$ alkyl;  $C_2-C_{20}$ alkyl which is interrupted once or more than once by nonconsecutive O atoms and which is unsubstituted or substituted by OH and/or SH;  $OR_{11}$ ,  $SR_{11}$ ,  $N(R_{12})(R_{13})$ , phenyl, halogen,  $NO_2$ ,  $CN$ ,  $(CO)-OR_{11}$ ,  $(CO)-R_{11}$ ,  $(CO)-N(R_{12})(R_{13})$ ,  $SO_2R_{24}$ ,  $OSO_2R_{24}$ ,  $CF_3$  and/or  $CCl_3$ ;



$Z_3$  is  $CH_2$ ,  $CH(OH)$ ,  $CH(CH_3)$  or  $C(CH_3)_2$ ;

$Z_4$  is S, O,  $CH_2$ ,  $C=O$ ,  $NR_{14}$  or a direct bond;

$Z_5$  is S, O,  $CH_2$ ,  $CHCH_3$ ,  $C(CH_3)_2$ ,  $C(CF_3)_2$ ,  $SO$ ,  $SO_2$ ,  $CO$ ;

$Z_6$  and  $Z_7$  independently of one another are  $CH_2$ ,  $CHCH_3$  or  $C(CH_3)_2$ ;

$r$  is 0, 1 or 2;

$s$  is a number from 1 to 12;

$q$  is a number from 0 to 50;

$t$  and  $p$  are each a number from 0 to 20;

**E, G, G<sub>3</sub> and G<sub>4</sub>** independently of one another are unsubstituted C<sub>1</sub>-C<sub>12</sub>alkyl or C<sub>1</sub>-C<sub>12</sub>alkyl substituted by halogen, or are unsubstituted phenyl or phenyl substituted by one or more C<sub>1</sub>-C<sub>4</sub>alkyl; or are C<sub>2</sub>-C<sub>12</sub>alkenyl;

**R<sub>11a</sub>** is C<sub>1</sub>-C<sub>20</sub>alkyl substituted once or more than once by OR<sub>15</sub> or  $\text{---C}(\text{---CH}_2\text{---})^{\text{O}}$ ; or is C<sub>2</sub>-C<sub>20</sub>alkyl which is interrupted once or more than once by nonconsecutive O atoms and is unsubstituted or substituted once or more than once by OR<sub>15</sub>, halogen or  $\text{---C}(\text{---CH}_2\text{---})^{\text{O}}$ ; or R<sub>11a</sub> is C<sub>2</sub>-C<sub>20</sub>alkenyl, C<sub>3</sub>-C<sub>12</sub>alkynyl; or R<sub>11a</sub> is C<sub>3</sub>-C<sub>12</sub>cycloalkenyl which is substituted once or more than once by halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>alkyl, OR<sub>11</sub> or C(O)OR<sub>18</sub>; or C<sub>7</sub>-C<sub>16</sub>arylalkyl or C<sub>8</sub>-C<sub>16</sub>arylalkyl;

**R<sub>14</sub>** is hydrogen, phenyl, C<sub>1</sub>-C<sub>12</sub>alkoxy, C<sub>1</sub>-C<sub>12</sub>alkyl or C<sub>2</sub>-C<sub>12</sub>alkyl which is interrupted once or more than once by O or S and which is unsubstituted or substituted by OH and/or SH;

**R<sub>15</sub>** has one of the meanings given for R<sub>11</sub> or is a radical  $\text{---C}(\text{---R}_{18}\text{---})^{\text{A}}$ ,  $\text{---C}(\text{---OR}_{18}\text{---})^{\text{A}}$  or  $\text{---C}(\text{---N(R}_{18})_2\text{---})^{\text{A}}$ ;

**R<sub>16</sub> and R<sub>17</sub>** independently of one another have one of the meanings given for R<sub>12</sub> or are a radical

$\text{---C}(\text{---R}_{18}\text{---})^{\text{A}}$ ,  $\text{---C}(\text{---OR}_{18}\text{---})^{\text{A}}$  or  $\text{---C}(\text{---N(R}_{18})_2\text{---})^{\text{A}}$ ;

**R<sub>18</sub>** is hydrogen, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>2</sub>-C<sub>12</sub>alkenyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, phenyl, benzyl; C<sub>2</sub>-C<sub>20</sub>alkyl which is interrupted once or more than once by O or S and which is unsubstituted or substituted by OH; **R<sub>18a</sub> and R<sub>18b</sub>** independently of one another are hydrogen; C<sub>1</sub>-C<sub>20</sub>alkyl, which is substituted once or

more than once by OR<sub>15</sub>, halogen, styryl, methylstyryl, -N=C=A or  $\text{---C}(\text{---CH}_2\text{---})^{\text{O}}$ ; or C<sub>2</sub>-C<sub>20</sub>alkyl, which is interrupted once or more than once by nonconsecutive O atoms and which is unsubstituted or substituted once or more than once by OR<sub>15</sub>, halogen, styryl, methylstyryl or  $\text{---C}(\text{---CH}_2\text{---})^{\text{O}}$ ; or R<sub>18a</sub> and

R<sub>18b</sub> are C<sub>2</sub>-C<sub>12</sub>alkenyl; C<sub>5</sub>-C<sub>12</sub>cycloalkyl, which is substituted by -N=C=A or -CH<sub>2</sub>-N=C=A and is additionally unsubstituted or substituted by one or more C<sub>1</sub>-C<sub>4</sub>alkyl; or R<sub>18a</sub> and R<sub>18b</sub> are C<sub>6</sub>-C<sub>12</sub>aryl, unsubstituted or substituted once or more than once by halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>2</sub>-C<sub>4</sub>alkenyl, OR<sub>11</sub>, -N=C=A, -CH<sub>2</sub>-N=C=A or C(O)OR<sub>18</sub>; or R<sub>18a</sub> and R<sub>18b</sub> are C<sub>7</sub>-C<sub>16</sub>arylalkyl; or R<sub>18a</sub> and R<sub>18b</sub> together are C<sub>8</sub>-C<sub>16</sub>arylalkyl; or R<sub>18a</sub> and R<sub>18b</sub> independently of one another are

$\text{---C}(\text{---Y}_3\text{---C}(\text{---Y}_3\text{---})\text{---N=C=A---})$  or

$\text{---C}(\text{---Y}_3\text{---C}(\text{---Y}_3\text{---})\text{---N=C=A---})$ ;

**Y<sub>3</sub>** is O, S, SO, SO<sub>2</sub>, CH<sub>2</sub>, C(CH<sub>3</sub>)<sub>2</sub>, CHCH<sub>3</sub>, C(CF<sub>3</sub>)<sub>2</sub>, (CO), or a direct bond;

**R<sub>19</sub>, R<sub>20</sub>, R<sub>21</sub>, R<sub>22</sub> and R<sub>23</sub>** independently of one another are hydrogen, C<sub>1</sub>-C<sub>20</sub>alkyl; C<sub>2</sub>-C<sub>20</sub>alkyl, which is interrupted once or more than once by nonconsecutive O atoms and which is unsubstituted or substituted by OH and/or SH; or R<sub>19</sub>, R<sub>20</sub>, R<sub>21</sub>, R<sub>22</sub> and R<sub>23</sub> are OR<sub>11</sub>, SR<sub>11</sub>, N(R<sub>12</sub>)(R<sub>13</sub>), NO<sub>2</sub>, CN, SO<sub>2</sub>R<sub>24</sub>,

$\text{OSO}_2\text{R}_{24}$ ,  $\text{CF}_3$ ,  $\text{CCl}_3$ , halogen; or phenyl which is unsubstituted or substituted once or more than once by  $\text{C}_1\text{-C}_4$ alkyl or  $\text{C}_1\text{-C}_4$ alkoxy;

or in each case two of the radicals  $\text{R}_{19}$ ,  $\text{R}_{20}$ ,  $\text{R}_{21}$ ,  $\text{R}_{22}$  and  $\text{R}_{23}$  together form  $\text{C}_1\text{-C}_{20}$ alkylene which is uninterrupted or interrupted by O, S or  $-\text{NR}_{14}$ ;

$\text{R}_{24}$  is  $\text{C}_1\text{-C}_{12}$ alkyl, halogen-substituted  $\text{C}_1\text{-C}_{12}$ alkyl, phenyl, or phenyl substituted by  $\text{OR}_{11}$  and/or  $\text{SR}_{11}$ ; with the proviso that  $\text{R}_6$  and  $\text{Z}_1$  are not identical and wherein the compounds benzyl-n-butyl-(2,6-dimethoxybenzoyl) phosphine oxide and benzyl-n-butyl-(2,4,6-trimethylbenzoyl) phosphine oxide are excluded.